

Service Characteristics of Transportation Network Companies (TNCs) and Conventional Taxis in Metro Manila, Philippines

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Abstract: The research focuses on characteristics of TNC users and operators; perception of commuters and operators on Uber and GrabCar; role of Uber and GrabCar in our transportation sector and sustainable transport in Metro Manila; and recommendations for TNCs as well as for improving conventional taxi services.

The results of the study contain the user profile characteristics, analysis of key performance indicators, service operator characteristics and contributions to sustainable transport. The rise of the TNC transport modes proved that there are problems in the current conventional taxi service in Metro Manila.

TNCs in order to contribute to a sustainable transport should consider the concept of ride-sharing by maximizing the occupancy of the vehicle, and by encouraging the people to share their ride. TNCs should highly discourage buying new vehicles for their members and instead utilize the existing vehicle in good condition.

Keywords: TNC, TNVS, Uber, GrabCar, Conventional Taxi, Transportation Network Company

1. INTRODUCTION

1.1 Background of the Study

Uber and GrabCar are classified as new modes of transportation under the Transport Network Company (TNC) here developed by other countries and been introduced recently in the Philippines which primarily competes on taxi services.

Throughout the past years, taxi monopolizes the use of private cars as public transport. The government never fails to regulate their service, but taxi operators often have poor initiative in improving the quality of their service.

Having a direct competitor for taxis will give alternative and options for commuters.

1.1.1 Uber

Uber is a German word which means: ultimate, above all, the best, top, something that nothing is better than. Uber Technologies Inc. was founded on March 2009 as “UberCab” by Travis Kalanick, and Garrett Camp as an American company headquartered in San Francisco, California.

After the beta launched in the summer of 2010, it was officially launched in San Francisco in 2011. They also changed its named from UberCab to Uber that year. Each month after, it expanded into different cities.

As of August 2015, service was available in 60 countries (321 cities).

Uber operations in the Philippines started in Metro Manila around December 2013. To position itself in the Philippine market, several marketing strategies were used with social networking sites as foundation.

To encourage people to register in the app, Uber gave away promotional codes which entitled them to a free ride (up to PhP 800.00). Referral campaigns were likewise used. Registered users may refer friends, if their referrals registered and booked their first ride then both the referral and referrer will be given free rides worth P200.00. This piqued interest of users and started sharing information and experiences online and offline. Uber was officially launched in the Philippines in February 2014.

1.1.2 GrabTaxi/GrabCar

GrabTaxi, also known as MyTeksi, was established in Malaysia by Harvard Business School graduates Anthony Tan and Tan Hooi Ling in 2011;

The idea started because of how hard to hail a cab in Malaysia. They developed and Uber like app that assigns available cabs nearby to commuters using mapping and location sharing;

It is available 6 languages—English, Thai, Vietnamese, Chinese, Bahasa Malaysia and Bahasa Indonesia and uses the same app for each country;

This e-hailing application is available in six countries in Southeast Asia, namely: Malaysia, Singapore, Thailand, Vietnam, Indonesia and the Philippines (20 cities).

GrabTaxi / MyTeksi was officially launched in the public last June 2012. It started in the Philippines on August 2013; Cebu, Philippines on July 2014; Davao City, Philippines in October 2014 and; Iloilo City, Philippines last March 2015.

In May 2014, GrabCar an Uber like service was launched in Malaysia, Singapore, Thailand and the Philippines.

GrabCar+ was launched in February 2015 in the Philippines and it uses higher-end cars like Uber Black service.

In July 3, 2015 GrabCar became the first accredited TNC by Land Transportation Franchising and Regulatory Board (LTFRB).

1.2 Objectives

This study has the following objectives:

- a) To explore the role of Uber & GrabCar in our transportation sector and sustainable transport in Metro Manila, through the use of online surveys;
- b) To determine the characteristics of TNC users as well as the attributes of TNC operators in Metro Manila;
- c) To determine the perception of commuters and operators on Uber and GrabCar.

1.3 Significance of the Study

This will help us know the role of Uber & GrabCar in our transportation sector, determine the characteristics of TNC users such as demographics & trip purposes were also noted as well as the attributions of TNC operators in Metro Manila; and will help us know the perception of people on Uber and GrabCar.

1.4 Scope and Limitation

The scope of the study includes the following:

- a) The study is limited to TNC like Uber & GrabCar, and Conventional Taxi in Metro Manila;
- b) Study area is limited to Metro Manila;
- c) Actual benefits to the public and community rather than the operator

1.5 The Study Area

The study area is limited to cities in Metro Manila, Philippines as the Uber & GrabCar is only allowed in Metro Manila. It is a driver/operator's discretion if he/she will transport passengers outside Metro Manila.

2. METHODOLOGY OF THE RESEARCH

2.1 Survey Methodology

- 1) Collection of secondary data from key agencies LTRFB, Uber and Grab companies

The gathered data from the LTRFB was important to the study, however, there are certain information that may only be gathered through an online survey addressed to riders and operators of Uber and GrabCar. The data gathered from the online survey was aimed to gather actual insights and unbiased feedback from the respondents. Although Uber and Grab companies did not cooperate and did not provide the requested data, some data were given by LTRFB.

- 2) Online Survey

The structure and method of the online survey form was based on "Car-sharing Where and How It Succeeds," 2005 which was conducted by the Transit Cooperative Research Program (TCRP).

The online survey forms were sent to Uber and GrabCar riders and operators via email and SMS. Forms was posted in Uber and Grab Car Facebook groups, and a Facebook page paid ad was utilized for immense dissemination.

Figure 1 shows the analytical framework of the study. It started with data collection, followed by analysis, output and finally the conclusion and recommendation.

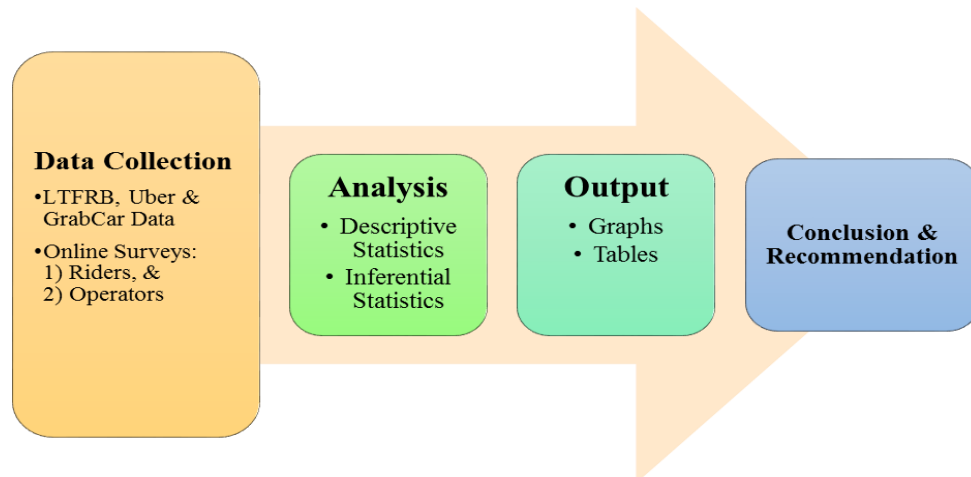


Figure 1. - Analytical Framework

2.2 The Respondents

Respondents of this study refers to users/riders and operators of Uber and GrabCar and conventional taxis who answered Survey Questionnaires online. Due to unavailability of data on the number of TNC users, a relative percentage of TNC users were deemed sufficient for purposes of this study. Aside from disseminating information to relatives and friends, the researcher, in order to encourage more people to participate, a paid Facebook ad with gift cards was utilized as reward to a lucky participant to be drawn in a raffle. In the case of the Online Survey for Operators, the data on number of operators was provided by the LTFRB. The researcher used sampling for the right number of respondents.

2.3 Survey Questionnaire

The *Survey Questionnaire* in this study was defined as a set of questions/statements which the researcher uploaded in Google forms which was posted online. The questionnaire contained multiple choice questions while other questions required enumeration of answers meant to measure opinions or experiences, specifically, of the rider and operator respondents.

An Exploratory Survey was posted online for riders of Uber, GrabCar and conventional taxis, while a Partners/Peer Survey for Uber/GrabCar Partners was accomplished by operators.

2.4 Procedure in Gathering Data (Online Survey)

1) Commuters & Private Car Users Survey (Web-Based Survey)

An online survey on google docs was disseminated online in social media as the primary users of Uber and GrabCar are online based.

2) Partners/Peers Survey (Web-based Survey)

The researcher conducted an online survey on the operators of TNCs. An online survey was disseminated on the Facebook groups of Uber and GrabCar and the Facebook page created. If possible and allowed, paper survey questionnaires with control number will be left in the offices of TNCs.

2.5 Statistical Treatment of the Study

1) Sampling Size for Commuters & Private Car Users Survey (Riders)

As the number of users of Uber and GrabCar is unknown and hard to determine for now, the researcher tries to have as many as possible respondents online through the help of the Facebook page created.

2) Sampling Size for Partners/Peers Survey (Operators)

Based from the number of TNC operators from LTFRB which is 9,735 for Uber and GrabCar, the sampling size should be 99 samples at 95% confidence level and 10% reliability. The researcher tried to obtain data from as many operator respondents as possible, but some were hesitant to answer and share information because of the thinking that it might be used against them. Others thought at first that the study was under the LTFRB but soon realized that it was not after clarification from the researcher. Table 1 shows a summary of survey respondents for this study.

Table 1. SUMMARY OF SURVEY RESPONDENTS
(AS OF MARCH 1, 2016)

TYPE OF SURVEY	Number of Respondents
Exploratory Survey of Uber, GrabCar, and Conventional Taxi (RIDERS)	119
Uber and GrabCar Partner/Peers Survey (OPERATORS)	102

3. PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

3.1. LTFRB Data

LTFRB was willing to help and share some data which is useful in the success of study. On the other hand, Uber and GrabCar did not want to participate and share their data. They said the data requested is confidential and they are a private company. The researcher will utilize the data from the online survey conducted instead.

As you can see in Figure 2, the Number of Transportation Vehicle Network Service (TNVS) Vehicles is 9735 as of Dec. 4, 2015, compared to registered taxis which is 3628. Unregistered taxis “colorum” were not included in the count because they are not in registered in LTFRB. The rise of these modes can say that we have problems with the once dominated by conventional taxis.

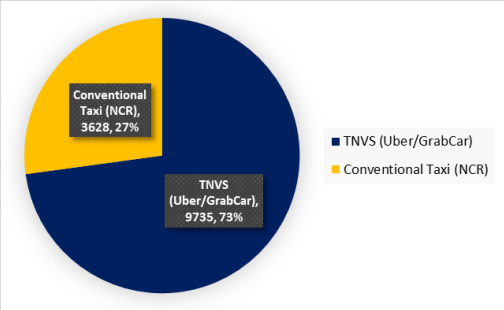


Figure 2. Number of Vehicles (TNVS and Conventional Taxi) as of Dec. 4, 2015

In Figure 3, we can see the number of operators and the number of units, while in Figure 3 we can see the comparison of number of operator & units between Uber and GrabCar. Uber being the first to start to operate here is well known compared to the latter GrabCar as seen in Figure 4.

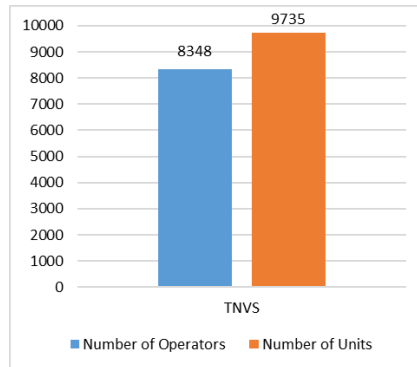


Figure 3. TRANSPORTATION NETWORK VEHICLE SERVICE (TNVS) Number of Operators and Units as of Dec. 4, 2015

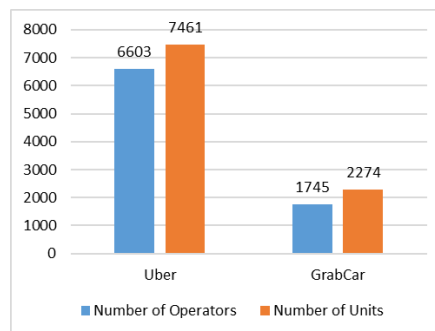


Figure 4. TRANSPORTATION NETWORK COMPANY (TNC) Number of Operators and Units as of Dec. 4, 2015

3.2. Demographics of Respondents (Riders)

In the online survey conducted for riders of Uber, GrabCar and Conventional Taxi, 62% are both commuter and private car user, 32% are commuters only, and 6% are private car user only. This is due to the fact that some private car user also uses Uber/GrabCar for different purpose that they don't want their car or don't want to drive.

Seventy-six percent (76%) of 119 respondents are employed, 3% are students and 20% are unemployed or self-employed. Fifty-seven percent (57%) of the respondents are female, average age is 31.48 years old while the median is 30 years old, and 47% got a bachelor's degree. Our poor public transportation system is the reason why most of women option to ride a taxi or Uber/GrabCar primarily for their safety and convenience.

3.3. Survey on Uber, GrabCar and Conventional Taxi Experience

Respondents were asked what made them choose Uber/GrabCar over Conventional Taxi as their mode of transport in your destination. The top 10 answers why: a) Convenience, b) Safety, c) Reliability, d) Less hassle, e) Just like my own car, f) Easy to book a ride, g) Cashless Payment, h) Drivers have undergone background check, and i) Cars are new.

Fifty-seven percent (57%) of the respondents are willing to give up their car for a convenient mode of transportation. The other 43%, however still prefer to have a car because of the present condition of our transportation sector as evident in the growing sales of cars.

The respondents were also asked how much they are willing to spend for a convenient and reliable ride, as shown in Table 2, 24% of the respondents are willing to add 100 to 150 pesos for a convenient and reliable ride.

Table 2. ADDITIONAL AMOUNT RESPONDENTS ARE WILLING TO ADD FOR A CONVENIENT AND RELIABLE RIDE

Category	No.	%
<i>Less than 50</i>	4	3 %
<i>51-99</i>	10	8 %
<i>100-150</i>	28	24 %
<i>151-200</i>	25	21 %
<i>201-250</i>	12	10 %
<i>251-300</i>	16	13 %
<i>301-350</i>	7	6 %
<i>351-400</i>	2	2 %
<i>401-450</i>	1	1 %
<i>451-500</i>	7	6 %
<i>501 or higher</i>	7	6 %

In Figure 5, we can see that the average amount car users spent for fuel in their vehicle every week are 1000 pesos. The results vary depending on the vehicle.

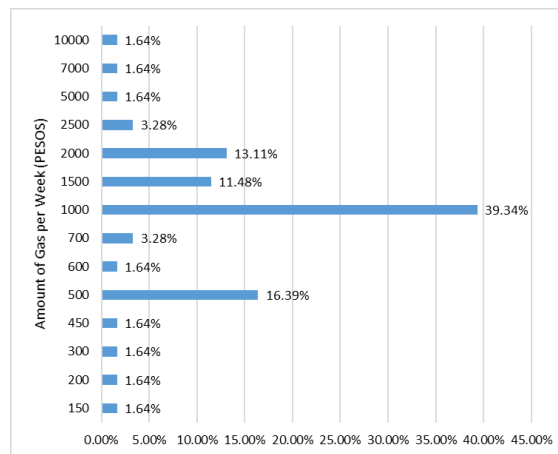


Figure 5. Amount Of Money Spent On Gas Spent Every Week For Car Users

In Figure 6, we can see the common complaints commuters experienced in riding a taxi in Metro Manila. The top three most common complaints with highest percent of answer are (1) Overcharging, (2) Rude Driver, and (3) Reckless Driving. These complaints are more about driver's attitude.

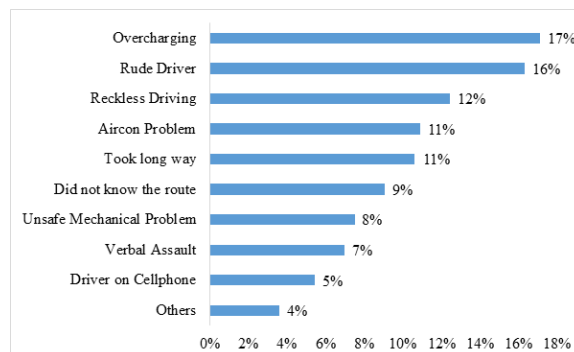


Figure 6. Common Complaints In Riding A Taxi In Metro Manila

In Figure 7, respondents were asked their primary purpose of riding service like Uber and

GrabCar. 46% of the respondents answered “commute to work” while 33% answered “personal business”. This is due good service Uber and GrabCar provide which fills up the gap the other public transport modes doesn’t have.

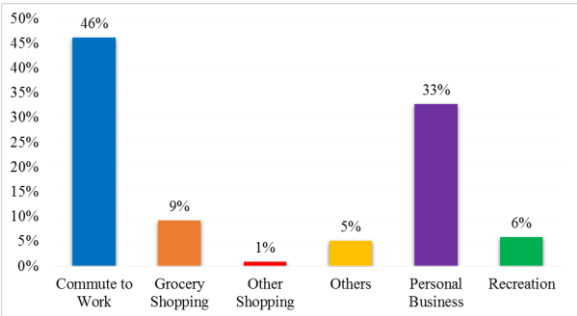


Figure 7. Primary purpose in riding service like Uber and GrabCar

In Figure 8, 119 respondents were asked on how many trips per month do they use Uber or GrabCar. The average trips per months based on their answer are 12.03 trips per month while the median is 8 trips per month. As we all know most of the users of Uber and GrabCar are employed, therefore is it close to the average workdays per month, which is 20 days/month or 5 days a week. These shows that TNC is a good alternative for commuters and plays a role in their daily activities. It also supplements the lack of available conventional taxis at a certain time.

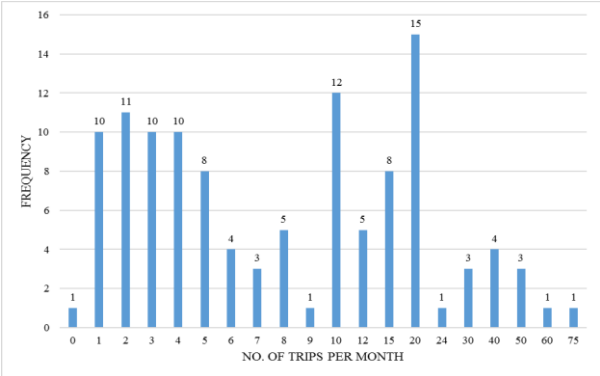


Figure 8. Number Of Trips A Month Via Uber / Grabcar

The reasons for using Uber/GrabCar was asked to the respondents, multiple responses were allowed as seen in Table 3. Twenty-one percent (21%) from the “Liked having another mobility options” this is because of the problems commuters experienced in the current available modes. Nineteen percent (19%) from the “Just found out about it”, Filipinos are known to experiment or try something new which is available. Thirteen percent (13%) goes to “Like Uber/GrabCar Philosophy”, others liked the way these TNC operate and became beneficial to some commuters.

Table 3. REASONS FOR AVAILING OF UBER OR GRABCAR SERVICE

Category	NO.	%
Liked having another mobility option	66	21%
Just found out about it	57	19%
Liked Uber or GrabCar philosophy	40	13%
Wanted to spend less on transportation	35	11%

Category	NO.	%
Eliminates the hassles of owning a car	31	10%
Could not afford to own/maintain/garage my car	23	7%
Others	23	7%
Uber or GrabCar services came to my neighborhood	14	5%
No particular reason	7	2%
My employer pays for membership or other expenses	5	2%
Car broke down or needed extensive repairs	4	1%
Changed job	2	1%
Changed location of my residence	1	0%
TOTAL	308	100%

Others: Better service than cab, comfort; Free Ride Upon Registration; My employer pays for membership or other expenses; No one to drive me to work; No particular reason; Taxi drivers are choosy on the destination

The respondents were asked to choose the most attractive feature of Uber or GrabCar, 18% of respondents chose reliability. That is, availability and the estimated time of arrival in the pick-up point. The second choice is, “easy to make reservations”, hailing a taxi or falling in line in a taxi stand is no longer needed. Vehicles are also new so there is a little chance of having a car breakdown. (Please refer to Table 4)

Table 4. MOST ATTRACTIVE FEATURES OF UBER/GRABCAR

Category	No.	%
Reliability - cars are there when I need them	21	18%
Easy to make reservations	19	16%
The overall philosophy of Uber and GrabCar	17	14%
Less costly than owning a car	11	9%
Easy to use	11	9%
Less hassle than owning a car	9	8%
No parking hassles	10	8%
Do not have to ask for rides from others	7	6%
Others	5	4%
Helps the environment	4	3%
Can pay for cars only when used	4	3%
More comfortable and faster than public commute	1	1%
TOTAL	119	100%

3.4. Commuter’s Perception on Uber & GrabCar

In this part of the survey, the researcher looked at the perception of people on Uber & GrabCar. With or without these modes, what will be its effect to commuters and what their rating of the current system. Perception of owning a car and reason for renting a car rather than riding Uber/GrabCar was also studied.

The respondents were asked on the rating about Uber/GrabCar they will give. Fifty-four percent (54%) gave a Very Good rating, 13% gave Good, and 33% gave an Excellent rating.

The respondents were asked about how many cars are owned by their household. The range is 0-5, zero (0) being none and five (5) being the highest answer. An average of 1.38 cars per household and a median of 1 was determined as you can see in Figure 9.

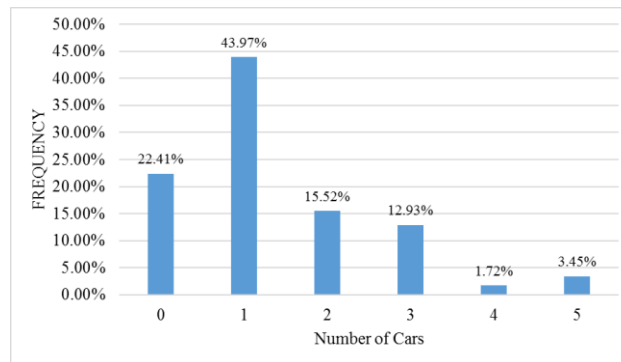


Figure 9. Number Of Cars Owned Per Household

In Table 5, respondents were asked about which of their trips do they feel the need to travel by car (either personal, rental or TNC), multiple response was allowed. Twenty-two percent (22%) are from recreation/social trips being the highest answer. Eighteen percent (18%) are for grocery shopping because of the need of compartment for groceries and another 18% for personal business. Sixteen percent (16%) are from journey to or from work.

Table 5. TRIPS NEEDED TO TRAVEL BY CAR
(THIS INCLUDES A PERSONAL VEHICLE, RENTAL CARS, OR TNC)

Category	No.	%
Recreation / Social trips	90	22%
Grocery shopping	73	18%
Personal business	72	18%
Journey to or from Work	65	16%
Work-related trips (e.g. meeting clients)	60	15%
Other shopping	40	10%
Other	8	2%
None of these	2	0.5%
TOTAL	410	100%

In Table 6, respondents were asked whether a car owner or not what do they like most about owning a car. Sixty-six percent (66%) answered “Instant access at any time of day or night” this is because a car is an instrument for transport. Other public transportation may not be available at night and not all places have public transport so some people believe in needing a car for their household.

Table 6. MOST LIKED FEATURE ABOUT OWNING A CAR

Category	No.
Instant access at any time of day or night	66%
Having a vehicle of my own choice	18%
I can be sure that the car is well cared for	8%
Others	5%
No opinion	3%
Don't like (wouldn't like) anything about owing a car	2%
TOTAL	100%

Respondents were asked how do they think that Uber/GrabCar compares to owning a car. Twenty-eight percent (28%) answered “Cost less”, in Uber/GrabCar you can have the convenience of a car without buying a car. It cost less because you will just pay for its service when you need it, compared to buying a car and paying for its maintenance and fuel. As seen in Table 7, when Uber/GrabCar service was stopped, 29% said they will use the transit instead while 24% will shift to taxis.

Table 7. ALTERNATIVE MODE IF UBER OR GRABCAR SERVICE WERE STOPPED

Category	No.	%
Use transit more often	66	29%
Use taxis more often	54	24%
Buy a car	43	19%
Walk more often	34	15%
Get rides from friends	25	11%
Move to another house	7	3%
Total	229	100%

For the open-ended question “If you were an advisor to a TNC company, what would your recommendations be for making Uber and GrabCar more attractive to persons like yourself?” the respondents were asked to enumerate their answers. The researcher then sorted all answers and came up with 15 most common enumerated responses. The topmost among all the answers is “Introduced advance booking” followed by “maintain cleanliness of cars” then “improve quality of service”. Other responses were tabulated and presented in Table 8.

Table 8. RECOMMENDATIONS TO UBER OR GRABCAR TO IMPROVE PERCEPTION

No.	RECOMMENDATIONS
1	Introduce advance booking
2	Maintain cleanliness of cars
3	Improve quality of service
4	Reward loyal passengers
5	Reward drivers
6	Roadside assistance to drivers in case of emergency
7	Apply the "true" car sharing principle. Ridesharing to others closer to your home.
8	Introduce carpooling services (Utilize all seats)
9	Do not exaggerate surge pricing. 1.1x up to 1.3x is ok, more than that is too expensive
10	Expand the service geographically to a wider range catering more people
11	Have a more transparent fare calculation.
12	I suggest to all drivers out there not to choose passengers.
13	Increase car sharing supply so that more people can use Uber or GrabCar and lessen surge prices
14	Make it more adaptable to low internet speed in the Philippines. Use Viber or WhatsApp in communicating with drivers rather calls& text to minimize cost
15	Professional training for drivers. (Safe driving, etiquette, good manners, courtesy, and alike)

3.5. Demographics of Respondents (Operators)

The researcher tried his best to get as many respondents (operators) as possible, but some didn’t want to share their information and didn’t want to contribute to this study. 102

operators participated to answer the online survey and valued the importance of this study in our transportation sector.

As seen in Figure 10, the average age of the Uber/GrabCar Operators who answered the survey was 35.8 years old with a median of 35. Mixed aged ranging from 20 to 60 years old was observed. Sixty percent (60%) of them are Uber operators, 25% are GrabCar operators and 15% are both Uber & GrabCar operators.

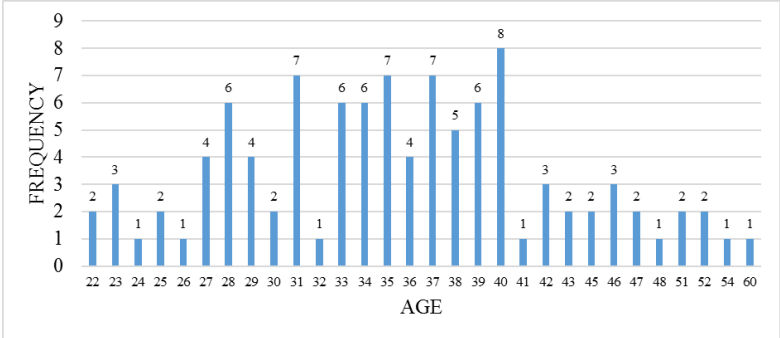


Figure 10. Age of Respondents (Operators) in Years

In Table 9, we can see that Uber dominates in the number of operators with a relative percent of 51%. Second is GrabCar with a relative percent of 25%. Others are a combination of both TNC.

Table 9. CLASSIFICATION OF TNC SERVICE OPERATORS PER CATEGORY

Category	No.	%
UberX	52	51%
GrabCar	25	25%
UberX, GrabCar	12	12%
Uber Black	7	7%
UberX, Uber Black	3	3%
UberX, Grabcar+	2	2%
Uber Black, Grabcar+	1	1%
Grand Total	102	100%

In Figure 11, we can see the number of units each operator has for TNC they are member with. The average number of units is 1.36 units with a median of 1.

Seventy-two percent (72%) of the respondents have other work, 15% resign to their work to be a full-time operator, and 60% are employed.

Most of the operator came from different field before Uber/GrabCar came along. Fifty-two percent (52%) of them are both driver and operator, 33% are operator, and 15% are driver only. The top reasons why they join Uber or GrabCar is additional income.

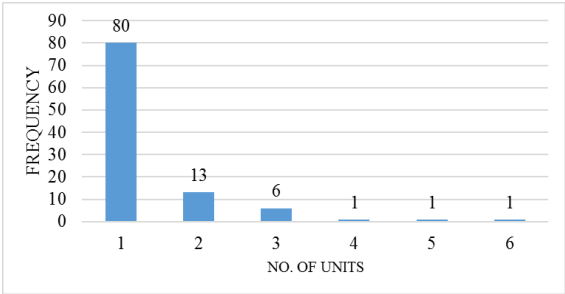


Figure 11. Number of Units Per TNC Operator

Figure 12, shows that 70% of the operators brought their vehicle brand new and 30% of them use their existing vehicles. Using a brand-new vehicle is against the principle of car-sharing and ridesharing but it has an advantage which is the quality of service for passengers while its disadvantage is the increased of number of vehicles that can contribute to traffic congestion.

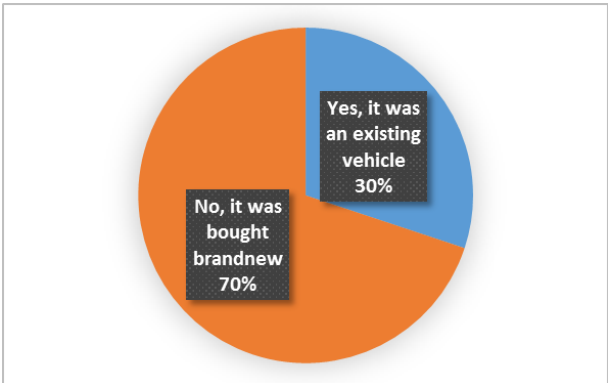


Figure 12. Using An Existing Vehicle Or Brand New For Uber Or Grabcar

3.6. Survey on Uber/GrabCar Operation

In Figure 13, the behavior of operators on how many times in a week they operate, results showed that the operators work for an average of 5.35 times a week, or a median of 6 times a week. This further proves that Uber and GrabCar Operators perform like a conventional taxi service. A conventional taxi operator typically works 6 to 7x a week. Also, we can clearly see that 27% of the respondents operates 11 to 12 hours a day and some are even at 16 hours a day. A conventional taxi with a premium service, is how operators of Uber and GrabCar behaves. (Please refer to Figure 14)

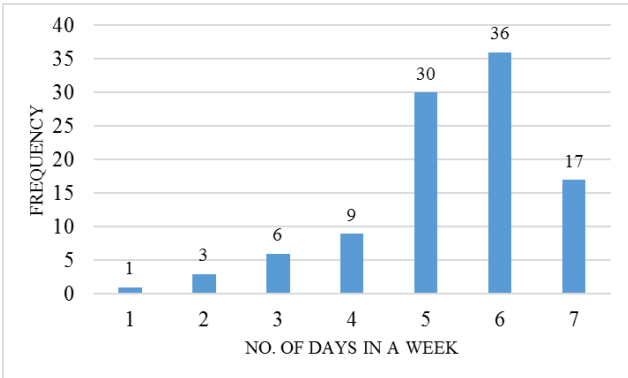


Figure 13. No. of times in a Week the Operators' Work

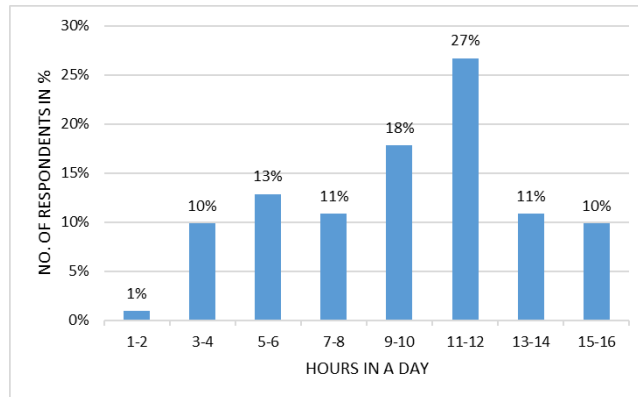


Figure 14. Operators' Number Of Work Hours In A Day

Based from the study conducted, Friday is the Peak day and said to have the highest number of bookings, while Sunday is the Off-Peak day which has the lowest number of bookings. It is said that the peak hours are between 7 to 8am and 6 to 7pm. The results can be subjective due to the low number of samplings obtained.

Based from the experience of the operators, 59% said that Makati City has the highest users of Uber or GrabCar, while Navotas City at 23% was said to have the lowest users of Uber or GrabCar. Again, the results can be subjective due to the low number of samplings obtained.

3.7. Operator's Perception on Uber & GrabCar

In Figure 15, the respondent operators were asked if TNC can give them good income, 47% said that it is only "break-even" while 37% said "yes" it gave them good income. Only 16% answered "no". Based on these data, it can be concluded that the operators and drivers cannot vouch for high income due to the monthly amortization they need to pay for their newly bought vehicle. On the other hand, operators with existing vehicle can appreciate the income they can earn in Uber or GrabCar.

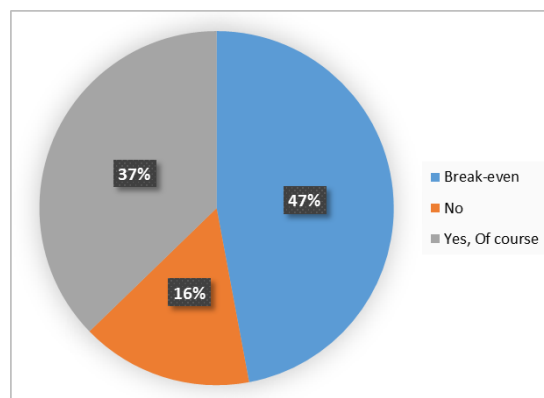


Figure 15. TNC (Uber Or Grabcar) On Giving Good Income

Based from the survey conducted, 32% answered that Uber and GrabCar "Provides mobility options" other top answers include "Reduces parking demand", "Reduce vehicle travel" and "increase transit ridership". Uber or GrabCar provides another mobility option for commuters however, because of its low capacity (1 to 4), it is not considered as mass transit. The most important goals for the operators is Uber or GrabCar provides mobility options.

Among the five (5) possible category answer, 47% of the respondent operators said that

they provide Garage or surface lot with restricted access for their vehicles. Same as the requirement in conventional taxis, TNC operators are needed to have a parking space for their vehicle. Illegal parking on the streets will just limit the road capacity so a parking a necessary for the operators of taxis and TNCs.

4. CONCLUSIONS

The following conclusions are made based on the findings of this study:

- a) The rise of the TNC transport modes proved that there are problems in the current conventional taxi service in Metro Manila. Overcharging, Reckless Driving, Rude Driver are found to be the most common complaints people experience in riding a taxi in Metro Manila.
- b) From the survey conducted, it was found out that sixty-two percent (62%) of Uber and GrabCar users are also private car owners. It is noted that the fifty-seven percent (57%) are female and 47% of the users have a Bachelor's Degree. Hence, the seventy-six percent (76%) of riders are anticipated to be employed. Furthermore, it is noted that the average age of Uber and GrabCar users is 31.48 years old, and the median is at 30 years old.
- c) The study determined that due to the poor public transport system, most numbers of women opt to ride either a conventional taxi or book a ride through Uber or GrabCar for safety and convenience.
- d) Convenience, Safety, Reliability, Less hassle, Just like my own car, Easy to book a ride, Cashless Payment, Drivers have undergone background check, and Cars are new are the top reasons why people book a ride through Uber and GrabCar.
- e) This study also proved that private car owners now have the option to use their cars occasionally and still enjoy the same service through Uber and GrabCar. Fifty-seven percent (57%) of the respondents are willing to give up their car for a convenient mode of transportation. The other 43%, however still prefer to have a car because of the present condition of our transportation sector as evident in the growing sales of cars.
- f) The primary purpose of riding Uber and GrabCar of the respondents is to “commute to work”. This is due to the better service Uber and GrabCar provide which filled the gap that the other public transport modes lacked and complements the poor service of some conventional taxis. Twenty-four (24%) of the respondents are willing to add 100 to 150 pesos for a convenient and reliable ride.
- g) Furthermore, the top reason for using Uber and GrabCar is to have another mobility option for commuters that is safe and reliable. It was found out that reliability is the most attractive feature of Uber and GrabCar and the convenience of online booking is better than hailing a taxi on the roadside or falling in line in a taxi stand.
- h) The average trips of respondents per month based on the answers from the survey is 12.03 trips while the median is 8 trips per month.
- i) Also, if Uber and GrabCar service is stopped, 29% of the respondents (riders) answered to use transit more often, and 24 % answered to use taxis more often.
- j) The average age of the Uber or GrabCar Operators who answered the survey is 35.8 years old with a median of 35. Mixed ages ranging from 20 to 60 years old are observed. Sixty percent (60%) of the respondents are Uber operators, 25% are GrabCar operators and the remaining 15% are both Uber and GrabCar operators. The average number of units the operator has is 1.36 with a median of 1.0.
- k) Most of the respondent operators came from different fields of work before Uber and GrabCar arise. Fifty-two percent (52%) are both driver and operator, 33% are solely

operators, while 15% are only drivers. The top reason why the operators joined Uber or GrabCar is to have an additional income.

- l) Based on the online survey conducted, Uber and GrabCar operators work at an average of 5.35 times a week, at 11 to 12 hours a day or even at 16 hours and 70% of operators bought their vehicle brand new.
- m) The reasons why TNCs does not contribute to sustainable transport are as follows:
 - If Uber and GrabCar service is not available, the 44% of the riders will shift to taxi, while 32% will use public transportation; The use of existing taxi and public transportation during the unavailability of Uber and GrabCar promotes to sustainable urban transport by avoiding car use.
 - If Uber and GrabCar service is stopped, the 29% of the riders will use the transit more often, 24% will use taxis more often, and 15% will walk more often; The inexistence of Uber and GrabCar service makes the commuters shift through the use of transit more often, use of existing taxis more often and, will make people walk more often which in return in favor to sustainable urban transport.
 - Seventy percent (70%) of the operators bought their vehicle brand new for Uber or GrabCar; The purchase of new cars for Uber and GrabCar use of the operators is against the principle of sustainable urban transport which is car reduction.
 - Most of the operators of Uber and GrabCar works six (6) times a week and at 11 to 12 hours a day and some are even at 16 hours a day; Furthermore, the operation of Uber and GrabCar at six (6) times a week at 11 to 12 hours a day is also against the principle of sustainable urban transport which is reduction of car use and promoting the use public transportation.
- n) TNC's role in Metro Manila is to have another mobility option for commuters that is safe, convenient and reliable. TNCs however compete with the service provided by taxis and this healthy competition is said to eliminate the taxi operators' monopoly in the transport market creating a benchmark that challenges the taxi operators to improve the quality of their service.
- o) From the perspective of supply and demand, TNC services can be optimized based on the demand of passengers in a certain area which is missing in taxi service.
- p) The TNCs in Metro Manila deviate from the true concept of car-sharing because most cars were bought brand new instead of using the existing vehicle for the purpose of becoming a TNC partner. We can still experience the same positive impacts of car-sharing if private car users will shift to using TNC instead.
- q) From my point of view, too much units of Uber/GrabCar vehicles can contribute to traffic congestion which can cause decrease traffic speed, increase traffic volume, and delay in travel time. Uber/GrabCar vehicles should be in moderation to be efficient.

5. RECOMMENDATIONS

The following recommendations are made towards improving transport services provided by TNCs as well as in aid of regulations and policy making for these modes:

1. In order to maximize the utilization of conventional taxis, dispatching method based on demand of passengers per city and per time should be used. Global Positioning System (GPS) and radio communication can also be used in assigning the taxis nearby.
2. Other TNCs should immediately process the accreditation with LTFRB to legalize its operation. Trade dress with branding logo requirement should be imposed to TNC vehicles to associate to its operator. TNC should not perform as a rent a car service or

through hailing. A trip request shall only be done through online booking via TNC Application.

3. TNCs should comply with all the other requirements mandated by the Government. Thus, TNCs being part of our public transportation, should be regulated to ensure the safety of the public. TNCs in coordination with LTFRB, should regulate the number of their partners to prevent traffic congestion caused by the excessive volume of members. This is essential in order to retain the basic principle of ride-sharing that was the original context by which Uber and GrabCar were established and for which sustainability is anchored on;
4. Further studies on the fare setting on Uber and GrabCar should be conducted to help determine the amount of fare that shall be regulated. This should include strict examination of surge fee computation to address the users' queries and concerns;
5. Number of vehicles per TNC operator should be limited to give opportunities for other private car owners to rideshare through TNC;
6. TNCs in order to contribute to a sustainable transport should consider the concept of ride-sharing by maximizing the occupancy of the vehicle, and by encouraging the people to share their ride. TNCs should highly discourage its members to buy new vehicles.

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